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and dealer will always adulterate and pack falsely. So the cotton he buys must be loosely packed that his hand may be able to reach any part of the bundle. So long as this well-founded distrust continues no press can succeed. A minor objection to pressing was that the cartmen charged as much and often more for carrying pressed than unpressed cotton. It is doubtful whether half presses would be a gain; but there is no doubt that the cotton trade would greatly profit if bales could be full pressed in Belgaum and Dhárwár and sent unopened to Europe.

Cotton Weaving.

The chief cotton weaving towns are, in order of importance, Gokák with a yearly outturn of goods valued at about £15,000 (Rs. 1,50,000), Chikodi Sankeshvar and Báil-Hongal each with a yearly outturn valued at about £12,000 (Rs. 1,20,000), Belgaum with a yearly outturn valued at about £11,500 (Rs. 1,15,000), Mundgod Athni Páchhápur and Deshnur each with a yearly outturn valued at about £10,000 (Rs. 1,00,000), Manoli and Garl Hasnar each with a yearly outturn valued at about £9500 (Rs. 95,000), Saundatti with a yearly outturn valued at about £9000 (Rs. 90,000), Kittur with a yearly outturn valued at about £7500 (Rs. 75,000), Mugutkhán-Hubli Bágevádi Marihal and Sulibhávi each with a yearly outturn valued at about £7000 (Rs. 70,000), Nesargi with a yearly outturn valued at about £6500 (Rs. 65,000), and Sampgaon with a yearly outturn valued at about £4000 (Rs. 40,000). Weaving is also carried on to a fair extent at Tailsang, Kágvád, Shailbal, Ainápur and Kunmadi, in Athni; at Ankalgi, Yádvád, Kavjalgi, Mamdápur, and Kurbat in Gokák; at Nipáni, Hukeri, Bhoja, and Kangoli in Chikodi; at Kovad and Chándgad in Belgaum; at Bidi, Khánápur, Nandgad, Itgi, Parasvad, Kitávad, Bogánar, and Haidur in Khánápur; at Sangoli, Manketti, Nágenhál, Tarmeri, and Hanchkalti in Sampgaon; and at Yekundi, Asundi, Sutigeri, Susanghi, Hasur, and Hanchinhal in Parasgad. The yearly outturn of all the hand looms of the district is estimated to be worth about £200,000 (Rs. 2,00,000).[1]

Spinning is carried on all over the district except in Belgaum and Khánápur, and is practised more or less by the women of every caste except Bráhmans. The women spend most of their spare time in making cotton yarn. In most black plain villages the yarn is made either from cotton grown on the spinner's land, or from the cotton which has been paid to the women and children of the house for picking their neighbours' crop. The yarn is taken to market and is there either sold for ready money, or bartered for salt, grain, curry stuff, and other articles. Petty dealers move about the country and attend the village weekly markets to gather yarn. When they have gathered a large quantity, they take it for sale to one of the leading hand-loom weaving towns.

Process.

For spinning into yarn and weaving into cloth the Belgaum and Bijápur people use nothing but the local cotton. They say that they

[1] These are Mr. Walton's estimates for 1879 (Belgaum Cotton, 142). Since 1879 chiefly from the competition of Bombay steam made cloth the hand-loom weaving has declined. The opening of railways and the establishment of mills at Hubli and probably at other Kánarese trade centres will further depress the local hand-loom industry.

cannot spin sawginned American, they use none of it and the whole crop is exported. As has been noticed they take the greatest pains that the cotton they spin is pure. The cotton is picked with special care and they ensure thoroughness and honesty on the part of the foot-roll ginners by paying them, not as they do when the cotton is to be exported by the weight of the ginned cotton, but by the weight of the seeds and dirt ginned out of the cotton. The local cotton cleaned by the foot-roller makes a strong and good though somewhat coarse and uneven yarn, and the local hand-loom cloth is wonderfully strong and lasting. The local cotton is also largely used in the Bombay mills and the demand would be greater if the growers took anything like the care of the cotton they export which they take of the cotton they spin. The immense number of foot-roller ginning-places, for every holder of cotton works foot-rollers in his own house or yard, makes the checking of mixing an almost hopeless task.

Teasing.

Before cotton is ready for spinning, it has to be teased by the Pinjáris or cotton-teasers most of whom are Muhammadans. These Pinjáris tease the cotton by laying it on the tight gut string of a harp-shaped frame called *bessi* which they set trembling by beating it with a dumb-bell shaped blackwood mallet.[1] In teasing cotton the harp-shaped frame or *bessi* is fastened to the roof of the house with the wooden part up. The sieve or *tutti* is set on the ground below the frame and on the sieve cotton is piled. The teaser sits on the left of the sieve and taking the frame in his left hand and the dumb-bell mallet in his right hand, draws the gut string of the frame among the pile of cotton and deals the string so sharp and heavy a blow that the quivering gut tosses the cotton into the air and opens it letting the dust and dirt pass through the sieve on to the floor. With two or three teasing frames at work the air is so thick with dust and fluff that no one but a teaser can stay in the room. When the teaser thinks he has made the cotton clean and soft enough, he takes the tapering bamboo stick in his right hand and rolling it deftly on his thigh gathers at the stick point a finger-long curl or roll of cotton called *hanji*. A teaser is paid 3*d*. (2 *as*.) for cleaning about six and a half pounds called a *dhada* of these curls or rolls. Sometimes, instead of cleaning other men's cotton, the teaser buys cotton from petty hawkers or from small village shopkeepers who take cotton from pickers in exchange for salt, grain, and curry stuff; teases it; and sells the rolls at 5¼*d*. (3½ *as*.) the pound. These rolls are seldom so well cleaned as the rolls which a teaser turns when he is called to a man's house and paid to tease the cotton.

Reeling.

The next process in working cotton into yarn is reeling. Cotton is

[1] The parts of the teasing appliance are a blackwood frame called *bessi* (K.) worth 10*s*. (Rs. 5); a goat-gut cord called *bihu* (K.) fastened as tight as a harp-string from end to end of the frame, worth 2*s*. (Re. 1); a dumb-bell shaped blackwood mallet called *korathi* (K.) worth 1*s*. (8 *as*.); a bamboo bow with a common string called *billa* (K.), worth ¾*d*. (½ *anna*); a bamboo sieve called *tutti* (K.), on which the teased cotton rests letting the dust and dirt pass through, worth 6*d*. (4 *as*.); a tapering eighteen inch long stick called *ganta* (K.) round which the teaser winds the teased cotton in curls or *hanjis* worth ¼*d*. (¼ *anna*), and a bamboo stick called *shedi* to gather the teased cotton. The whole cost of the teaser's tools is 13*s*. 7*d*. (Rs. 6¾).

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Reeling.

reeled on the spinning wheel or *nulu-rati* (K.) which is worth 1*s.* 3*d.* to 1*s.* 6*d.* (10-12 *as.*) and is much like the old English distaff. On the frame shaft a small wooden upright is set, and on the upright an iron pin called *kadaru*. This pin is fixed upon two short pegs on the outside, and is held together by the shaft thread which passes round the wheel. The wheel is worked by the right hand, the cotton roll or *hanji* from which the yarn is twisted being held in the left hand. As the wheel turns, the pin spins round and rapidly twists the fibre into yarn. As the yarn forms it is reeled on the pin and when the reel has grown to a certain size it is taken off and another is begun. These oblong reels of cotton twist or yarn are called *kudali*. As soon as the spinner has enough of these reels, she again fixes them one by one to the iron pin or *kadaru*, the end of the twist being passed through a bamboo tube called the *huvinghi*. The yarn is then arranged on a rack-like wooden machine fitted with pegs, called *hassamari* and costing about 1*s.* (8 *as.*). The yarn is worked in and out among the pegs until enough has been wound to make a hank or *putti*. The hank is taken off and a new one begun.

Spinning.

In a Hindu house there is next to no sewing. Almost all clothes are worn as they come from the loom, so that when there is no field work, after their housework is over, the women have a good deal of spare time. As a class the women are very hardworking and spend all their spare time in spinning. Most women spin five hours a day, and others whose housework is light spin still longer. Ripening crops are generally watched by women, many of whom may be seen sitting on some raised part of the field working the thread-wheel and scaring birds and other thieves. A clever woman will spin four ounces of cotton in five hours. The return is small. On a market day the women take the hanks to the nearest town. A hank of coarse yarn weighing about eight ounces and six yards long, sells for about 3¾*d.* (2¼ *as.*) and a hank of fine yarn five yards long and weighing six ounces fetches 2⅝*d.* (1¾ *as.*). Taking off the price of the cotton rolls this leaves only ¾*d.* (½ *anna*) for two days' spinning. These starvation rates are the result of the competition of English and Bombay machine-made yarn; formerly the thread wheel yielded a fair return. The spinners sell their hanks of yarn to weavers and to tape and rope makers.

Dyeing.

If he is going to weave coloured cloth the buyer hands his hanks to the dyer. For the best fast colours the dyer charges 4½*d.* to 5¼*d.* (3-3½ *as.*) and for less lasting or brilliant colours 1½*d.* to 3*d.* (1-2 *as.*) for each hank. The coarser yarn is generally dyed with the cheaper dyes and the finer yarn with the dearer dyes. After being coloured, the hanks are dried by spreading them along a pair of stands called *hudithers* (K.) costing about 1*s.* (8 *as.*). Uncoloured yarn is soaked in water for about three days and is then spread on the drying stands. Little yarn is spread to dry at the same time as the yarn should be washed or dyed just before it is arranged on the loom.

Warping.

In dyeing, the yarn is as far as possible arranged so that each fibre may lie separate and in proper order for weaving. To arrange the yarn, a number of flat bamboo sticks, called *khumbhis*, together

worth about 1½*d.* (1 *a.*), are laid between the upper and lower fibres. After the sorting or *hassu* is finished the yarn is taken off the stands to be sized. The size used in the Bombay Karnátak is Indian millet starch. It is thoroughly worked into the yarn by hand, and the yarn is again stretched on the stand or *hudither*. After this second stretching, to make it fair and even and take off surplus size, the yarn is most carefully and repeatedly brushed with an instrument called the *kunchghi* worth about 7*s.* (Rs. 3½). For the finer cloths this brushing or combing takes much time and requires great skill. The brushed yarn which is called *vunki* is taken off the stand and arranged on the loom, a process known as *hanaji*. In arranging the yarn on the loom one end of the fibres is fastened to four round sticks or *koles*, which in weaving are at the extreme other end of the web from the weaver and then each fibre is passed between the teeth of the comb or *tutt* which lies across the web in front of the weaver. Two flat sticks called *shullis* (K.) are shoved in to keep the upper and lower fibres of the web from entangling. When the fibre-sorting is finished the web is again fixed on the stand or *hudither*, and then the threads are placed in their final position according to the texture of the cloth which is to be woven. After this final process the yarn which is called *hormatghi* is taken from the stands and fixed to the loom or *mugga*, when it gets its final name of warp or *negi*. The whole process of preparing the warp yarn is carried on in the open air.

The yarn used for the woof or cross threads is differently prepared. Local yarn if undyed is well soaked in water. Dyed yarn is not soaked and neither dyed nor undyed yarn is sized. It is next stretched between two rude stands called the *hari*, rough upright wooden posts with several pegs in them, for the proper arrangement of the yarn. When the yarn is ready the end is taken off and fastened to a conical reel called *hati* worth 1½*d.* to 3*d.* (1-2 *as.*). English or Bombay yarn is not put on the round *hari*, but on a wheel of bamboo sticks called a *rattal* worth about 3*d.* (2 *as.*). This change of process is needed because English yarn is made in such short hanks that no peg-winding is wanted. When the yarn is ready it is reeled on to small bobbins called *kankis* on a wheel called *rutti*, almost the same as the spinning-like wheel or *naluratti*. In reeling English or Bombay yarn the bamboo stick wheel *rattal* is placed close to the spinning-like wheel or *ratti*, and over the iron pin or *padaru* is drawn a hollow reed or millet stalk; the end of the yarn is brought from the bamboo-stick wheel and fastened to the hollow reed; the spinning-like wheel is turned, and as much yarn as is wished is reeled off. In reeling local yarn the peg-post or *hati* is brought close to the spinning-like wheel and the yarn is reeled. The bobbins or *kankis* are laid in a basket close to the weaver who fastens one on an iron pin in the shuttle, uses it and when it is empty fastens a new one. After a piece of cloth is finished, it is unrolled from the *kunti* or weaver's beam at the top of the loom and neatly folded square. It is then considered ready for the local market or for export.

The Kánarese call the loom *magga*; the Musalmáns call the loom

Chapter VI. Trade. Industries. *Weaving.*

kám. Looms vary considerably in quality and cost.[1] The price ranges from about 10*s.* to £1 (Rs.5-10) and even higher. The size of the weaving room for one loom is about eighteen feet by eight, for two looms eighteen by twelve, and for three eighteen feet square; each loom wants six feet extra. In towns where weaving is carried on to a large extent few work-rooms have only one loom. Most have two or three, and some, especially at Belgaum and Guledgud in Bijápur, have four. A new loom is rare. Many looms are for sale at a half or a third of their cost.

Beginning from the weaver's end the parts of a loom are: The pit or *mugga teg*, thirty inches by fifteen and twenty inches deep, in which the weaver sits as he weaves. In front of the pit is the weaver's beam or *kunti*, a solid square bar about four feet long by four inches broad. It has a ridge on one side in which a thin round stick called the beam-stick or *kunta da shull* is fixed. To this beam-stick are fastened the ends of the warp yarn. The beam has socket ends and is so fixed, that, as his work advances, the weaver can turn the beam and roll the web loosening the warp at the other end by a pulley and rope which is fastened to a peg close to his right hand. The beam is kept in its place by two strong pegs the *nali ghut* and the *honkal ghut*. Across the warp hung from the roof by strings and a stick is the frame or batten called the *hulghi* which encloses the comb or reed called *tutt* between whose reeds the warp yarn is passed. Next to the batten is the heddle harness with heddle strings hanging from two thin bamboo tubes fastened to heddle sticks or *biza koles* which are attached to the roof. The heddles are provided with loops or eyes through which the warp yarn is passed. The heddles communicate by strings and sticks with the treadles or *havanpads* in the pit by pressing which alternately with his foot the weaver

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[1] The names and the cost of the different parts of a loom are: One comb-frame or *hutgi* of tamarind or blackwood, worth 9*s.* to £1 (Rs. 4½-10); one reed comb for common cloth, very neatly made, 1*s.* 3*d.* (10 *as.*); one comb for fine cloth made with English thread, 3*s.* 6*d.* (Rs. 1¾); one *hanaghi* which in addition to the comb holds two *biza* to keep the warp separate and regular, 1*s.* 9*d.* (14 *as.*); one *kunti* or weaver's beam with two peg for rolling the cloth as it is made, 3*s.* 6*d.* (Rs. 1¾); one *ard dunghi* or cross bar to lift the warp, 7½*d.* (5 *as.*); one *kai guta* 1½*d.* (1 *anna*); one *amár* or *ambár dunghi*, 4½*d.* (3 *annas*); one *nevghi haggi* or rope to keep the warp stretched, 4½*d.* (3 *as.*); one *chingi koli* or stick to which the warp ends are fastened, 3*d.* (2 *as.*); one *meni guta* peg for fastening the rope, 1½*d.* (1 *anna*); two *tankoles* the sticks that are attached to the *biza* holes, with the two wooden soles, the *havinpads*, 2¼*d.* (1½ *as.*); two *kal pavantgis* complete, 3*d.* (2 *as.*); two *khumbis* for regulating the texture of the cloth, 1½*d.* (¾ *anna*); two *shulls*, ¾*d.* (½ *anna*); two *chaker gards* or rude pulleys, 3*d.* (2 *as.*); one pair of *shed kutgis* with needles, 1½*d.* (1 *anna*); two *lattis* or shuttles made of buffalo horn, 1*s.* 3*d.* (10 *as.*); one *nali ghut*, ¾*d.* (½ *anna*); one *honkal ghut*, 1⅛*d.* (¾ *anna*); one pair *nimbada ghut*, for keeping the *kal pavatghi* in its place, 3*d.* (2 *as.*); total £1 (Rs. 10). This is about the cost of a good medium loom fit for ordinary work. Some much commoner and not so complete can be bought as cheap as 10*s.* (Rs. 5); others for making fine goods out of the higher counts of machine-made yarn with silk ornament, cost £2 to £2 10*s.* (Rs. 20-25). The more expensive looms have the following extra fittings: One *pata gad* complete, a frame fitted over the loom with sixteen pulleys for cords to pass through, to keep separate all the different silks. This is used in making elaborately patterned borders in expensive cloth. They cost 2*s.* (Re. 1) to 2*s.* 6*d.* (Rs. 1¼) each. A set of five to nine light iron and wooden rods or *sulls* hang by the pattern frame to keep the silk and other rich border threads distinct so that in weaving the woof thread may pass through them. They cost 1*s.* 9*d.* (14 *as.*) to 2*s.* 9*d.* (Rs. 1⅜) the set. The Kánarese call the warp *negi* and the woof *hoke*.

forces the heddles to carry up and down the warp yarns which are passed through their loops or eyes and so leave a passage for the shuttle between the two rows of warp yarn. The treadles are fastened by ropes to two pegs in the bottom of the loom-pit. Beyond the reed and the heddle harness is the cross bar or *ard dundghi* fixed to the ground on two pegs or *pevigutas* and used for raising the warp. Beyond the cross bar three sticks are placed across the warp to keep the yarn from getting out of place. The further end of the warp is fastened to the *chingi koli* (K.), a round wooden bar, and to the bar another shorter piece of wood is wound by a strong twine in the centre of which a rope called the *veigi hagga* (K.) is fastened and secured to a strong peg called the *meniguta* (K.). From the peg the rope is drawn back close to where the weaver sits and is fastened to another peg called the *raiguta* (K.). This rope the weaver loosens whenever he has web enough to wind round the beam. When the loom is ready, the weaver sits on the ground with his legs in the pit and works the heddles one by one by pressing his feet on the treadles. He passes the shuttle with its reel of thread sharply from right to left and back again as he lifts and lowers the fibres of the warp by working the treadles. After each passage of the shuttle, the weaver brings the woof yarn home by drawing the batten or reed frame heavily against the edge of the web. To keep the web from shrinking until there is enough to wind on the beam two bent rattan sticks with a needle in either end are fastened at the sides of the cloth.

Outturn.

The cloths woven in the Belgaum hand-looms are women's robes *sádis* (M.) or *siris* (K.), seven to nine yards long and one and a quarter yards wide. They vary in price from 2*s.* 3*d.* to 10*s.* (Rs. 1¼-5) when made of coarse village yarn, and from 5*s.* to £1 10*s.* (Rs. 2½-15) when made of fine machine-made twist with silk borders and costly colours. Bodices, *holis* (M.) or *kubsas* or *kubassas* (K.), vary from coarse plain cloths to rich showy stuffs. The size for grown women is about three quarters by half a yard. The price varies from 6*d.* to 3*s.* (Rs. ¼-1½) a piece. Girls' robes or *kirgis* (K.) worn by girls of five to thirteen are two and a half to five yards by two to two and a half feet. They are sold at 1*s.* 3*d.* to 6*s.* (Rs. ⅝-3) a piece. Men's waistcloths are generally woven in pairs. The size of each is three yards by one for grown men and they are smaller in proportion for youths and boys. A pair of coarse waistcloths varies in price from 1*s.* to 3*s.* (Rs. ½-1½), and a pair of superior waistcloths with silk edgings cost 2*s.* to £1 4*s.* (Rs. 1-12). Báil-Hongal is noted for its fine waistcloths. Boys' waistcloths or *bhuchkhanis* (K.) are one and a half to two and a half yards long by three quarters of a yard broad. They are worn by boys of five to fifteen and vary in price from 6*d.* to 2*s.* 9*d.* (Rs. ¼-1⅜) a pair. Headscarves or *rumáls* (K.), are three to five yards square. The way of wearing the headscarf varies according to the wearer's caste. Most are made of machine-spun yarn. They vary in price from 9*d.* to 6*s.* (Rs. ⅜-3). At Chikodi and Deshnur a larger and costlier headscarf called *mundar* (K.) is made fifteen to fifty yards long and eight to twelve inches broad. These headscarves are worn by Maráthás, Musalmáns, and others, who, though natives

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of the country, dress differently from the ordinary Kánarese. At Chikodi their price varies from 3*s.* to £1 10*s.* (Rs. 1½-15) and at Deshnur some sell as high as £3 (Rs. 30). The costlier turbans have the outside end elaborately adorned with silk and gold or silver tinsel. Longcloths called *khádis* (M.) or *hachdás* (K.) when taken off the loom are about eleven yards long by one yard broad. They are used as bedding, as veils for Musalmán women when they walk abroad, and for making into coats for Musalmáns, and at Gokák, Murgod, and Manoli for printing with coloured designs. These longcloths are always made of hand-spun yarn; cloths made of coarse yarn are chosen for printing, as they take the stamp and show the designs much better than finer cloth. Their price varies from 2*s.* 6*d.* to 5*s.* (Rs. 1¼-2½). Coloured handkerchiefs or *vastras* (K.) are woven at Sankeshvar. They are two feet to one and a half yards square and are used among the forest tribes as head coverings, and among the labouring classes as waistbands. Their price varies from 1½*d.* to 9*d.* (¾-6 *as.*). At Belgaum and at Mugutkhán-Hubli is made a cloth of various patterns known as *susi* (K.) about eight yards long by one yard broad. These cloths are used for making coats trousers and other articles worn by Musalmáns, by Maráthás for bedding, for clothing by Goanese Christians, and a large quantity is bought by Government for various uses in regimental hospitals. *Susi* varies in price from 2*s.* 6*d.* to 4*s.* (Rs. 1¼-2) a piece. At Bágevádi a coarse sheeting called *nadka* (K.) is made. These are two and a half by one yard in size and in price vary from 10½*d.* to 1*s.* 3*d.* (7-10 *as.*).

Of the local goods those woven at Báil-Hongal are of what are known as the Dhárwár and Sholápur patterns and those at Páchhápur as the Sháhápur pattern; at Athni the favourite patterns are known as the Jamkhandi, Sátára, and Chiplun; at Gokák the favourite patterns for robes are the Kolhápur, and for waistcloths the Sángli, Kolhápur, and Miraj; and at Deshnur the favourite patterns for headscarves and waistcloths are the Jamkhandi and Rámdurg, and for robes and bodices the Sholápur and Konkan.

Carpets.

Carpets or *jemkhanis* (K.) are made chiefly at Belgaum, Báil-Hongal, and Mugutkhán-Hubli. Carpet-making, which from the Hindustáni names for all the parts of the loom seems to have been brought from North India, is almost entirely in the hands of Musalmáns. Unless the carpets are small, a special loom is used which like the ordinary loom is called *mugga*. It consists of two *thaklás* or wooden bars with posts and pegs worth 12*s.* to £7 (Rs. 6-70), two *gulis* worth 3*d.* to 6*d.* (2-4 *as.*), one *pesbhánd* worth 4½*d.* to 9*d.* (3-6 *as.*), one *pansa* worth 1*s.* 3*d.* to 2*s.* 3*d.* (Re. ⅝-1⅛), and one *kamán* worth 3*d.* to 6*d.* (2-4 *as.*), the whole costing 14*s.* to £7 4*s.* (Rs. 7-72) according to the size and quality of the loom and the kind of carpet to be made. The *thaklás* are two long wooden bars about eight inches in diameter either round or eight-sided, which are fixed one about eight feet from the ground the other close above the ground, on two upright wooden posts, thus making the loom an upright frame. This upright frame is set in the workshop or *kárkhána* where a hole is dug three feet square by two and a half

Carpets.

feet deep. The threads of the carpet are made from the usual country yarn. They are twisted to the proper size for the kind of carpet required and are fixed from the upper to the lower cross bar. Two *gulis* or sticks, secured with twine in the same way as the *hanagis* of the cloth-loom, are fixed to the carpet thread. In passing the cross thread the workman pulls these two sticks one after the other, and he closes and tightens the texture by working the iron comb called *panja*. The *gulis* or sticks are supplemented by the *kamán*, a semicircular stick secured by string at each end and fixed to the *peshband*, a long bamboo which stands on pegs behind the weaver. Carpets five to fifteen feet long by twenty inches to fifteen feet broad sell at 1*s*. 6*d*. to £1 2*s*. (Rs. ¾-11). The small pieces are used by Musalmáns as praying carpets. The patterns are various, most of them being in gaily coloured stripes. Every colour is brought into use from sober gray to brilliant orange.

Ropes.

Cotton is worked into twine and rope varying from the finest cord of two or three strands of yarn to heavy ropes. They are six feet to ten yards long and sell at 1½*d*. to 1*s*. (1-8 *as*.). From this cordage whip-lashes, horse reins, and yoking bands are made. These ropes are made on a primitive machine called *kám*. This includes a *kám* which is either a wooden frame if a rope of three strands is to be made, or a board if a rope of six strands is to be made, and is worth 6*d*. (4 *as*.); *vuttis* or sticks, three being used for a rope of three strands and six for a rope of six strands, worth nothing; a *putti*, a flat wooden board with holes, into which the strands are put and rolled, to give the proper twist to the rope, worth 1½*d*. (1 *anna*); a *bágai* a cone-shaped piece of wood, often a fragment of a Pinjári's hammer, in which six fair leaders are cut, through which the strands of the rope are passed, to keep them in place, is worth 3*d*. (2 *as*.); a mantt, a large piece of wood forked into two stems, to which an iron hook the *bore khudi* is fastened, to fix the end of the rope, and on the wood a large stone is placed heavy enough to give the needed drag on the rope, to prevent it curling into coils while being made, worth 6*d*. (4 *as*.).

Other miscellaneous goods are *páls*, in Kánarese called *guddars*, which are strong cloths or rather light carpets twelve to thirty feet long by eight to twenty-five broad, made by sewing firmly together stripes of strong stuff called *gudar putti*. Making these *guddarputtis* is a separate, and in Amingad, Ganjnihal and Bijápur in Bijápur, and Mugatkhán-Hubli, in Sampgaon a fairly large industry. These cloths are used to cover the big family-cart when the women and children are going to any domestic festival or religious fair; for making booths in markets; for rude tents used when on a long journey, especially by the Vanjáris, to protect their packs; for sorting oilseeds and grains; and for carrying grain from the fields. They are also used as carpets. A finer cloth called *padam* is used in the same way as the *guddar* and also for making bags and curtains. The *padams* are generally about fifteen feet by nine, of various colours, red and white and blue and white being the favourites; they cost 1*s*. to 2*s*. (Re. ½-1) a piece.

Chapter VI. Trade. Industries. *Tape.*

Tape or *ladi* is generally three to six feet long by three quarters to one and a half inches broad; it costs ½*d.* to 1*d.* (½-¾ *as.*) a piece. Tape is of many sizes and sorts, both white and coloured, for binding and ornamenting native saddles, for embellishing horses' head gear, for making bridles, for fastening travelling and money bags, for binding bedding, and for making tents. A very broad thick strong tape called *navár* is much used in making tents, for stretching on sleeping cots, for waistbands for labouring people and regimental sepoys, and for messengers' belt or badges. Belts or *puttis* sown together are made into cloths or *páls* and *gudars* or carpets, and into bags for pack-bullocks, travelling bags, and other uses. All these articles are made from the yarn spun by the women on the spinning wheel during their leisure hours. Head harness for horses called *muki* is made of heavy tape about twenty by one and a quarter inches, woven from strong thick thread. They sell at 3*d.* to 6*d.* each (2-4 *as.*). Horse reins or *lagáms* are round ropes about as thick as a man's little finger and five to six and a half feet long; they sell at 6*d.* to 1*s.* (4-8 *as.*). *Guddarputtis* or carpet belts are generally coloured in red and white stripes, of different lengths, and of various breadths though seldom more than nine inches broad. A piece eighteen feet long costs 1*s.* to 2*s.* (Re. ½-1) according to quality. The machine used in weaving floor-cloths and tape is distinct from the loom. It is called a *tána,* is very rude and rough, and can be bought complete for 9*d.* (6 *as.*). It includes three parts; the *tána* frame worth 6*d.* (4 *as.*), the *ghut* or pegs worth 1½*d.* (1 *anna*), and the *hatha* or knife worth 1½*d.* (1 *anna*). The *tána,* a strong square wooden frame, is firmly fixed in the ground. Two cross sticks are fastened to the side posts, the upper stick being flat and the lower round. At the middle of the lower stick are a number of strings called the *biza,* through which the yarn to be woven is passed, and carried over to the top on the flat stick. The full length is then stretched and passed round a strong wooden peg or *guta* and brought back to the side of the *tána,* and there fastened to a second peg. This gives the length to be worked at full stretch. The weaver sits beside the frame with his reel of woof yarn, and passes the reel through the warp backwards and forwards giving the cloth a drive at each pass with the knife or *hatha.* This industry is almost entirely in the hands of the poorer class of Muhammadans. When he intends to make these miscellaneous articles, the weaver goes to the nearest market on market day, and buys hanks or *puttis* of coarse yarn. He takes the hanks home and opens and sorts them carefully into as many threads as the thickness of the intended article requires. These are then twisted into the necessary strands, or thick threads, by a largish spinning reel called a *bhirki,* worth 3*d.* (2 *as.*) This spinning reel is a cone-shaped piece of wood through whose centre a long thin stick is fastened. It is worked by taking the stick in the right hand, and fastening to it the end of the thread to be twisted. Then with the palm of his hand the man gives a quick rolling motion to the thread on his thigh, with the reel hanging down and rapidly revolving. When this length has been sufficiently twisted, he winds it round the reel, and starts with another length, and so on, until he has enough to fix the frame.

Industries. *Weavers.*

The Belgaum weavers belong to many castes: Hatkars, Patvigárs, Sális or degraded Patvigars, Padamsális, Lingáyats, Maráthás, Khatris or Chutris, and Musalmáns. The weavers are an orderly, quiet, and respectable class. Except some of the more wealthy who make expensive goods and employ workmen most weavers get all the work done by their own households and employ no outside labour. The engagement is always by contract, and a fair workman, on a long day's work, earns about 3¾*d.* (2½ *as.*). A weaver noted as a skilful and rapid worker earns more.

Shopkeepers and exporters make considerable advances to the weavers of the town in which they live, and the weavers are bound to deliver the goods within a certain time. Breaches of contract are rare. The richer townspeople order expensive cloths to be made of a particular size and description. They generally advance money while their orders are being carried out. Weavers of coarse cloth are fairly busy throughout the year. Weavers of the finer cloths are busy only during the eight fair months. Weavers work about eight hours a day, keep all the important holidays, and stop work on every *amávásya* or no-moon day. The average monthly earnings of a man his wife and two children vary from 8*s.* to 16*s.* (Rs. 4-8) if employed in weaving coarse cloth, and from 16*s.* to £1 12*s.* (Rs. 8-16) if employed in weaving the finer cloths.

Trade.

After meeting local wants, the different cotton goods are sent to other parts of the district and to places outside of the district. The cheaper and coarser goods are sold by the weavers, in the villages on market days, and they also go hawking them in the small places that have no regular markets. The higher class of goods are sold to shopkeepers and exporters. Numbers of pack-bullocks travel all over the country, whose owners both buy and sell local cotton goods. The Sampgaon and Kittur goods for the most part are made to meet the wants of the *malládu* or rainy country near the Sahyádris where the bulk of the people are poorer than the people of the black plains. The goods are bought by these people at the weekly fairs or are taken to them by peddlars. The goods from Athni go to Sháhápur and Kágvád and to Bágalkot and Jamkhandi; the Gokák goods go to Belgaum, Sháhápur, Nipáni, and Sankeshvar, and to Kolhápur and Bágalkot; the Chikodi goods go to Sankeshvar, Nipáni, Belgaum, and Sháhápur, to Kolhápur, Miraj, and Sángli, and to Málvan, Rájápur, and Vengurla in Ratnágiri; the Belgaum goods go to Sháhápur and Nandigad, and to Goa, Vengurla, Ratnágiri, Sávantvádi, and Málvan in the Konkan; the Sampgaon goods to Belgaum, Sháhápur, Nandigad, and the hill country, to Mudhol, Bágalkot, Jamkhandi, and Sholápur, and to Vengurla and other coast towns; the Parasgad goods go to Belgaum, Nipáni, Nandigad, and Dhárwár, Nargund, Mudhol, Bádámi, Kaládgi, Jamkhandi, Miraj, Kolhápur, Poona, Sholápur, and in small quantities to the coast; the Khánápur goods occasionally go in small quantities to Belgaum and the coast.

Weaving.

In 1817, when Belgaum and Bijápur came under British rule, almost all the cotton which was a very small crop was used locally. The number engaged in spinning and weaving was small, but with

Chapter VI. Trade. Industries. *Weaving.*

increased security for life and property the number rapidly increased until the weavers became an important class. The demand for raw cotton and the supply of raw cotton increased together. This went on till 1840, when the local weaving trade was worth lákhs of rupees a year. The first known estimate of the amount of cotton used locally appears in 1852-53, when 3332 *khandis* of 784 pounds each are estimated to have been used in the district, against 4937 exported. The district at that time included the three important cotton-growing sub-divisions of South Bijápur, Bágalkot Bádámi and Hungund. For the five years ending 1853-54 an average is recorded of about 5063 *khandis* exported against 2772 *khandis* kept for home use. In 1854-55 the estimate is 3597 *khandis* kept for home use and 5792 *khandis* sent away; in 1855-56 the estimate is 2979 *khandis* kept for local use and 3865 *khandis* sent away; and in 1856-57 3913 *khandis* kept for local use and 5779 *khandis* sent away. For the five years ending 1856-57 the average is 3547 *khandis* kept for home use and 5416 *khandis* sent out of the country. In 1857 in Sampgaon about two hundred looms were at work in the villages of Deshnur, Báil-Hongal, and there were several looms in Sampgaon, Mugutkhán-Hubli, Mankatti, and other villages, over the whole sub-division supplying work for an estimated total of about five thousand. What they chiefly made were robes turbans and waistcloths of coarse cotton cloth, part to meet the local demand and the rest to send to the Konkan through Belgaum. Most of the weavers worked on their own account, a few employed labour and owned four or five looms. At Belgaum there were four to five hundred weavers who made coarse cloth only. The coarse Belgaum cloth and similar cloth made close by in Sháhápur was all used in the neighbourhood. Most other villages had ten to thirty weavers.

In 1857 in Chikodi the revenue survey officers found that slightly over two thousand persons were maintained by weaving in addition to about another thousand equally divided between the towns of Nipáni and Sankeshvar. Of the two thousand, over five hundred lived in Yamkanmardi, and about two hundred and fifty in Chikodi; the rest were scattered in small numbers among the different villages. No high-class goods were made. Only the usual waistcloths, turbans, women's robes, and coarse cloths; almost the whole was used locally, In the Ankalgi petty divsioin of the old Páchhápur sub-division less than five hundred persons were engaged in cotton weaving; of these three hundred were in Páchhápur, and the rest were scattered over the other thirty-two villages. The Kittur petty division of the Bidi sub-division contained forty-one villages, and had close upon eighteen hundred and fifty persons supported by weaving, nearly half of these being in Kittur itself, a town of over seven thousand five hundred inhabitants; the others were scattered through the rest of the petty division.

Large as it still is hand-loom weaving is a falling industry and grows less year by year. The competition of English that is Manchester goods, locally called *manaji peit mál*, that is goods made at the town of Manaji, has been growing stronger during the last twenty-five years, and during the last twelve years the competition

Industries.

Weaving.

of Bombay-made yarn and cloth has been still more severe. The branch of the local weaving industry that has been most affected is the weaving of the more costly and better paying goods. Many places that used to do a large trade in piecegoods now weave nothing but the coarser cloths. At one time, the weavers were one of the wealthiest of up-country classes. But for many years the margin of profit left to the weaver has been so small that many came to poverty. The 1876 famine fell with peculiar severity on the weavers as they had no store of grain, and as soon as grain became dear the demand for their cloth ceased. Most of them were unfitted for the heavy labour of the ordinary relief works. Still some of them took to labour and are said to be better off than they were as weavers. Since 1877 the position of the weavers has been improved by a brisker demand for cloth and by the cheapness of yarn and of grain. The hand-loom weavers are likely to suffer from the opening of railways. Railways will tend to raise the local price of grain and will cheapen the price at which English and Bombay cloth can compete with the produce of the local hand-looms. To this will probably be added the still more ruinous competition of local weaving mills. In 1880 Mr. Walton estimated that about twenty per cent of the cotton crop was used locally. All that is used is Kumta that is local cotton.

Printing.

At Murgod, Gokák, and Manoli, cloth is stamped or printed with wooden blocks in various patterns and colours. This was at one time a large and important industry. Even now more calico-printing is done at Murgod than in the whole of the rest of the Bombay Karnátak. At Murgod about fifteen Shimpi families find constant employment as calico-printers. They work about eight hours a day and keep all the leading Bráhmanic and local holidays. Their women and children help in washing the cloth. Their average daily earnings vary from 6*d.* to 9*d.* (4-6 *as.*). They sell their prints from place to place or at their houses to cloth dealers. They suffered severely during the 1876 famine, and are depressed by the constant fall in the price of imported prints. In brilliancy, purity, and fastness the dyes used by these Belgaum block printers are better than those in imported English prints. In spite of the hardest treatment in washing, a local print keeps its colour and lustre, till it is worn threadbare. The printing is done by hand with small blocks of *hasan* Briedelia retusa wood worth 6*d.* to 8*s.* (Rs.¼-4) on which designs are skilfully and tastefully carved in relief by men of the Jingar caste. The printers work the blocks with great speed and skill, and their wares are still very popular. The fall in price prevents the present printers from doing such good work as their fathers did. Still they have a surprising knack of choosing patterns and colours which please both at a distance and close at hand. In their competition with the local printers the outside prints have the advantages of cheapness and variety.

Calico Printing.

Only the coarser *khádi* or *hachda* cloths are used in block printing, as coarse cloth shows the prints and colours much better than fine cloth. In calico-printing the cloth is taken to water, if possible running water, and is thoroughly soaked and well shaken.

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The washing and drying go on between three and four days until all trace of size has disappeared. The cloth is then soaked for three days and pulled about in a mixture of oil and water. It is again taken and washed in the river, and after a second thorough drying it is steeped in a mixture of myrobalans or *hirdas* and water. After this second drying it is ready for printing.

The articles used in making dyes are *hirdás* or myrobalans, *nil* or indigo, *kusbi* Carthamus tinctorius oil, iron filings, anters gum, *máephals* or gallnuts, and *surang* a brown dye. Indigo is brought from the Madras Presidency and gallnuts and *surang* from Sholápur. The other materials are of local origin. In making ready the dye, iron filings are dropped into water and kept in water for three days. The iron-laden liquid is drawn off little by little, as much water as has been taken away being each time added. When enough iron-water has been stored gum is mixed with it until the compound becomes thick soft and sticky. If the ground-work is to be coloured the cloth is soaked in a dye of the desired shade. After the ground-work is dyed, the stamping begins with the iron-water and gum, mixed with the required colour, or, if no other shade is added, the iron-water and gum print a dark ironstone. After stamping so as thoroughly to fix the prints and colours, the cloth is boiled in *surang* and water. The printed cloth is dried and again taken to a river and gently washed. It is then finished by a dressing of rice starch and dried and the starching and drying are repeated time after time for six days. The charge for the whole process is 2*s.* 6*d.* (Rs. 1¼) for each piece ten yards long by one yard wide. Among the cloths printed are *jázams* a light carpet for floors, *pachodis* large cloths for covering the body, chintzes, dark red spotted prints much used for clothes by Muhammadans, *palangpuds* for bed coverlets, waistcloths and turbans, *asmangiris* or ceiling cloths, and *pardás* or curtains used in Musalmán houses, tapes for cushions and mattresses, rose-coloured chintz, tent lining, a variety of red printed cloths for bedding, native saddle-cloths, and book-binding cloths. As a rule, one yard of printed cloth costs 9*d.* to 1*s.* (6 - 8 *as.*) The floor-cloths or *jázams* vary in price from 6*s.* to £1 12*s.* (Rs. 3 - 16) according to the length and breadth of the cloth, a *pachodi* costs 4*s.* to 16*s.* (Rs. 2 - 8), and a bed cover 1*s.* 6*d.* to 2*s.* 6*d.* (Rs. ¾ - 1¼). Murgod, the long established head-quarters of calico-printing, still sends a considerable quantity of goods to Sháhápur, Belgaum, Dhárwár, Kaládgi, Kolhápur, Miraj, Sángli, Jamkhandi, and the coast.

Dyeing.

Cotton thread dyeing is a separate industry at Gokák and Manoli in Parasgad. It supports 250 families of Bandhgárs or workers in red, who belong to the Náglik division of the Lingáyat sect, and eleven families of Nilgárs or indigo-workers who, except two families of which one are Chunárs and the other are Musalmáns, are mostly Maráthás and Námdev Shimpis. The Bandhgárs are said to have come about a century ago from Kalyán in the Nizám's country and Adváni or Adoni in Bellári. About 1850 there were three hundred families. Of the origin of the Nilgárs nothing is known. Since 1850 their number has increased from nine to eleven families. A cotton-thread dyer's appliances are simple. They are a mortar and a few pestles

for powdering *surang* root and *pápdi* or carbonate of soda, a copper vessel for boiling the yarn, and two or more large wide-mouthed earthen vessels to prepare and store the dyes. As a rule each dyer makes his own dye-stuffs. The chief dyes for colouring red are the roots of the *surang* which come from Sholápur and *pápdi* which is used when a fast colour is not wanted. The black dye is indigo. In preparing the red dye the *surang* root or *papdi* is pounded to fine powder. To 4½ pounds of this powder are added half a pound of alum powder, a pound of oil, and some water. Besides indigo the black dye contains *tarvad* (Cassia auriculata) seed, lime, and milk-bush or plantain ashes. Indigo and *tarvad* seed are powdered and put into a large-mouthed earthen vessel partially buried in sheep or goat dung, and over the indigo and *tarvad* a solution of lime and ashes is poured into the vessel. The mixture is stirred every day and is left for five days in the earthen vessel, when it is considered fit for dyeing. The thread they dye is both of local and of Bombay manufacture. Bombay thread being finer is greatly used by rich Bandhgárs and is woven into fine cloth. The usual steps taken to make the yarn ready for the dye is to boil it in a strong caustic lye in which carbonate of soda plays an important part. Alum is one of the commonest mordants. The lye consists of goat or sheep dung, milk-bush or plantain tree ashes, oil, and water. The yarn to be dyed is steeped in the lye, trampled under foot, and dried in the sun. This process is repeated for eight days. On the ninth day, the yarn is soaked in water, boiled for some time, washed in clean water, and dried in the sun. It is then dipped into the prepared colour, and the dipping is repeated four to eight times according to the desired brilliancy. In some places yarn is boiled; in other places it is simply washed and dipped into the colouring matter, and steeped in the dye-stuff a larger or a smaller number of times according to the required blackness.

The Bandhgárs find much work all the year round, and the Nilgárs are busiest between June and October As a rule both Bandhgárs and Nilgárs work eight or nine hours a day, from seven to eleven or twelve in the forenoon, and, after the midday rest, from two to six. They never work at night. If work is pressing they rise about four and go to a river or reservoir to wash the yarn. They keep most of the leading local and Brahmánic holidays. The Musalmán Nilgár family keep three Musalmán holidays, but stop work on many Hindu holidays because the weavers their employers are mostly Hindus. The women help the men. A Bandhgár earns 6*d.* to 9*d.* (4-6 *as.*) a day. The rich Bandhgárs dye their own yarn and sell it to weavers at 16*s.* to £1 12*s.* (Rs. 8-16) a *chaukdi* of twenty-four hanks, each hank weighing sixteen *tolás*. Bandhgárs who have no capital remain as dyers in the service of their richer castefellows. Bandhgárs' yarn is used locally, and when the local market is overstocked and dull, it is sometimes taken to the surrounding towns. Nilgárs dye weavers' yarn and are paid according to the quality of the colour. Poor Nilgárs work under rich Nilgárs. Of two hundred Bandhgár families fifteen are rich living in substantial houses and owning £200 to £5000 (Rs. 2000-50,000), eighty-five are middle class, and a hundred are poor. Of the eleven families of Nilgárs the two richest

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are said to be worth about £500 (Rs. 5000), three are middle class, and six are poor. The Bandhgárs suffered much during the 1876-77 famine. The competition of outside goods is rapidly ruining their calling, and some of the families who were reduced to distress by the last famine are said to be likely to leave their homes and settle in some other part of the country. The Nilgárs also suffered during the last famine. Neither Bandhgárs nor Nilgárs are bound by any trade rules.

Silk-Dyeing.

About forty families of the Sankar caste in Belgaum and about ten families of Sális at Gokák spin and dye raw silk. The silk-workers at Belgaum are labourers and those at Gokák capitalists. Their business is dull during the rainy season and brisk at other times. The raw silk comes from Bombay. After it is coloured it is generally sold to local weavers at about £1 8*s.* (Rs. 14) a pound. The workers are well off and the industry is rising.

Wooden Toys.

Fancy furniture and wooden toys are made here and there in the district. Gokák and Deshnur in Sampgaon are noted for their wooden toys. Toy-making supports twelve families in Gokák and three in Deshnur. All of them belong to the Jingar caste who claim to be Kshatriyas or corruptly Chhatris. They are said to have been brought into Belgaum about a century and a half ago by one Bhimráv son of Anandappa, the headman of Kágal in Kolhápur. Bhimrav's grandson Bápu Jingar, a skilful painter and wooden toy-maker, was patronised by a chief of Kolhápur about eighty years ago. He lived for ten years in the service of the prince and after his patron died he went to Gokák and lived among his relations, maintaining himself by making wooden toys, palanquins, and the *abdágirs* or ornamental umbrellas which are carried over native chiefs. It was he who taught his relations how to make wooden toys. The Jingars are also employed to paint temples and rich men's houses. They have given up their old craft of leather-working and every member of their small community is forbidden to work in leather on pain of losing caste, though in practice this offence is condoned by a caste feast. The wood generally used for toys is all local woods, silk-cotton *sávar* Bombax malabaricum, *umbar* Ficus glomerata, and teak. Besides wood, the chief materials used are varnish, beeswax, coloured tin plates called *begad* (M.), and gold-leaf. These things are brought from Belgaum or bought of local dealers. The material generally used for colouring red is vermilion, for yellow orpiment, for white whitelead, and for black indigo. A wooden toy-maker has six tools, a saw worth 1*s.* to £1 (Rs. ½-10), an adze worth 4*s.* to 8*s.* (Rs. 2-4), a plane worth 2*s.* to 8*s.* (Rs. 1-4), a file worth 1*s.* to 2*s.* (Re. ½-1), and two chisels one for coarse work worth 1*s.* to 4*s.* (Rs. ½-2), and the other for fine work with a very sharp point worth 3½*d.* to 6*d.* (2¼-4 *as.*).

They make cradles, palanquins, toys, fruit, animals, men, and gods.[1] They are skilful workmen, and their wares are much

[1] The chief articles made and their prices are: A Bráhman his wife and child Rs. 5; a Marátha his wife and child, Rs. 5; a Váni his wife and child Rs. 5; a Váni at work, Rs. 3; a cultivator Rs. 5; a weaver Rs. 3; a blacksmith Rs. 3; a potter Rs. 2½; a goldsmith Rs. 2½; a tailor Rs. 2; a calico-printer Rs. 2; a Nilgár dyer Rs. 2; a Bandhgár dyer Rs. 2¼; a Kurub blanket-weaver

admired especially by Europeans. The figures are life-like and the fruit is surprisingly natural and highly finished. Their wares have a local sale among rich Hindus and Párasi merchants of Belgaum, but most of them go to Bombay to the agents of Bombay work-box makers. From Bombay their wares find their way all over India. At times advances are made and the demand is strong, but, as a rule, it is rather dull. Wooden toy-makers generally work about nine hours a day, from seven to eleven in the morning, and from two to six in the afternoon. When orders are pressing they work extra hours sometimes till nine. During these extra hours they do not carve or paint; they mix dyes and make other preparations. Boys help the men in preparing colours, the women do not help the men. The average yearly income of a toy-making family is said to vary from £10 to £30 (Rs. 100 - 300). They generally make articles to order, and seldom have more than two or three pounds (Rs. 20 - 30) invested in stock. They are unsteady workers and never finish in time. They take few holidays, but are often idle from want of work. During the 1876 famine, except a few families who were supported by the Chief of Jamkhandi, they were reduced to distress. Many had to sell their property and a few had to leave their homes. The low price of grain in some of the years since the famine has helped them and some have recovered from their famine losses. They are

Rs. 2½; a Teli oil-presser Rs. 8; a butcher Rs. 3; a comb-maker Rs. 2½; a barber Rs. 4; a washerman and his ass Rs. 3; a Bhisti or water-carrier Rs. 3; a Bhisti with his water-bag by his side, Rs. 2; a Burud or basket-maker Rs. 2; a Vadar with his cart Rs. 5; a banker Rs. 3; a Jingar or harness-maker Rs. 3; a painter Rs. 3; a shoemaker Rs. 4; a woman spinning cotton Rs. 3; a woman ginning cotton Rs. 2; a schoolmistress Rs. 3; a Kásár putting bangles on the hands of a woman Rs. 5; a Patvegar twisting silk Rs. 5; a well for watering Rs. 12; a water-spring for bathing Rs. 7; a well for drinking Rs. 7; a Korvanji with her child Rs. 3; a liquor-seller Rs. 7; a Máng or a carrier of dead cattle Rs. 2; a snuff maker Rs. 5; a dancing girl Rs. 9; a Jangam or Lingáyat priest Rs. 2; a Chalvádi with bell and ladle Rs. 3; a Bairágí or ascetic Rs. 2; Gondhalis or beggars Rs. 2; a Kid-bid-joshi or gipsy Rs. 3; a Dasáyya beggar Rs. 2½; a horn-blower Rs. 2; an old man and an old woman Rs. 5; a Puránik or reciter of hymns Rs. 5; four wrestlers Rs. 8; a snake-charmer Rs. 9; a Sudgad-Shiddi or sexton Rs. 2½; a Lamáni or carrier with his wife Rs. 9; a Mena Rs. 9; a palanquin Rs. 10; a Moglai carriage Rs. 10; a Chopdár or mace-bearer Rs. 2; a Pattevála or peon Rs. 2; a Kázi or Musalmán priest Rs. 2-½-a Mulla or Musalmán school-master Rs. 2; a Párasi Rs. 2½; an Emperor Rs. 30; five princes Rs. 15; five rich men Rs. 15; a Bráhman bathing Rs. 3; a cow Rs. 2; an elephant Rs. 10; a camel Rs. 3; a panther Rs. 10; a she-buffalo Rs. 2; a she-goat Rs. 2; a he-goat Rs. 2; a ram Rs. 2; a tiger Rs. 3; a bear Rs. 2; a boar Rs. 2; a stag Rs. 2; a deer Rs. 2; a hare Rs. 2; a jackal Rs. 2; a mouse Re. 1; a scorpion 8 *as.*; a *heggana* or rat Re. 1; a lizard 8 *as.*; a *jhural* or beetle 8 *as.*; a dog Rs. 2½; a monkey Rs. 2½; an ape Rs. 2½; a lizard Re. 1; a snake Rs. 3; a large serpent Rs. 3; a parrot Re. 1; a dove Re. 1; a sparrow Re. 1; a starling Re. 1; a crane Rs. 2; a crow Re. 1; a hen Rs. 2½; a cock Rs. 3; a lion Rs. 3; a *Kámdhenu* or cow of paradise Rs. 3; a *tás* a kind of skylark Re. 1; a fish Re. 1; a tortoise Rs. 3; a crab Rs. 2; a bunch of mangoes Rs. 1½; a bunch of plantains Rs. 1½; a jack fruit Rs. 1¼; a watermelon 12 *as.*; a pomegranate 6 *as.*; a fig 6 *as.*; a jujub fruit 6 *as.*; an almond 4 *as.*; a sugarcane 8 *as.*; an apple 6 *as.*; a tamarind pod 8 *as.*; a bunch of grapes Re. 1; a pine-apple Rs. 1½; a pair of maize heads 6 *as.*; a guava 6 *as.*; a cashewnut 6 *as.*; a lemon 6 *as.*; an orange 7 *as.*; a *papanas* pumelo 10 *as.*; a *sitáfal* or custard-apple 6 *as.*; a *bhendi* 2 *as.*; a brinjal 4 *as.*; a gourd 8 *as.*; garlic 4 *as.*; chillies green 1 *a.*; chilli red 1 *a.*; a *padval* or snake-gourd 6 *as.*; a *ráitále* or sweet-potato 2 *as.*; a *dodke* 4 *as.*; *tondle* a vegetable 2 *as.*; a cucumber 3 *as.*; a *kavit* or wood-apple 4 *as.*; *máhulung* a fruit 6 *as.*; *popai* a fruit 4 *as.*; *rámfal* or sweet sop 6 *as.*; a white gourd 6 *as.*; a *gájar* 2 *as.*; Cassia fistula pod 2 *as.*; *kárle* or bitter gourd 4 *as.*; a radish 6 *as.*; a carrot or onion 4 *as.*; *shevaga* or horse-radish pod 2 *as.*; an *avala* or emblic myrobalan 8 *as.*; a *karvand* or corinda 8 *as.*

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not bound by a guild, every one is free to sell his things at any price he chooses.

Industries.

Copper.

Copper vessels are made in Belgaum by sixty families of Jain Bogars and by Musalmán labourers. The copper comes from Bombay in sheets chiefly by sea through Vengurla. The copper is beaten into cooking and drinking vessels of different forms. The demand is steady. The Bogars sell their articles direct to consumers at Belgaum and other market towns and fairs. The price varies from 3*d.* to £5 (Rs. ½-50) according to weight, the rule being 6¾*d.* (4½ *as.*) the *sher* of twenty *tolás*. The workers are well off and the trade is steady.

Pottery.

Earthen pots are made throughout the district by Marátha and Lingáyat Kumbhárs who make earthen pots of various sizes, tiles, and bricks. The pots and tiles are made on a wheel turned on a short pole fixed upright in the ground. Bricks are made in a quadrangular wooden frame. Potters are busy during the hot season and idle during the rains. They work about ten hours a day. They keep all local and Bráhmanic holidays and rest on every no-moon or *amávásya*. The women and children help the men in preparing the earth for the pots. They take their pots for sale to market towns and sell the tiles at home. The price of a pot varies according to size from ½*d.* to 1*s.* (½-8 *as.*). The price of tiles varies from 8*s.* to 16*s.* (Rs. 4-8), and of burnt bricks from 4*s.* to £1 4*s.* (Rs. 2-12) a thousand. The average yearly earnings of a family range from £5 to £20 (Rs. 50-200). As a class potters are poor. The craft is neither rising nor falling.

Oil-Pressing.

Oil is pressed from *til* Sesamum indicum, *kusbi* Carthamus tinctorius, *bhuising* or groundnuts Arachis hypogea, and *ambádi* or hemp Hibiscus cannabinus. The oil-pressers are Lingáyats, Maráthás, Khatris, and Musalmáns. Telis or oilmen are found in almost all towns and large villages. Their chief settlements are Belgaum, Kittur in Sampgaon, and Athni. The oilseed is partly grown in the district, partly brought from Bijápur, Sátára, and Kolhápur. Most families have some capital. The oil-mill includes a *gán* or cylindrical stone block half buried in the ground, and a *kani* or wooden roller to which a heavy weight is hung and which is turned by two bullocks. About thirty-five or forty pounds of *til*, *bhuising*, *kusbi* flour, or *ambádi* are thrown into the hole of the block, and the roller is placed on the block and turned. When the seed is crushed the powder is mixed with water and the roller is again put in motion till all the oil is pressed out. The employment is steady. The mill is generally at work twice a day from six to eleven and from two to seven. Oil-pressers never work on Mondays. The women help them in grinding the oil-seed. The average daily earnings of a family are 4½*d.* to 9*d.* (3-6 *as.*). The pressers sell the oil to oil-dealers or direct to consumers at their houses, and sometimes hawk it from door to door and from village to village. The price of oil is about 6*s.* (Rs. 3) for twenty-six pounds (1 *man*). Oil-pressers as a class are well off. Within the last few years their profits have been greatly reduced by the competition of kerosine oil which almost all classes have taken to use as a lighting oil.